CLAIMS

What is claimed is:

1. A system for distributing a non-odorized gas comprising:

an inner pipe adapted to contain the non-odorized gas at a first pressure; and

an outer pipe adapted to contain an odorized fluid at a second pressure;

wherein the inner pipe is routed through the outer pipe and the first pressure is greater than the second pressure.

2. The system of claim 1, further comprising:

a junction box adapted to contain a length of the outer and inner pipes;

a first valve connected to the length of outer pipe, the first valve being configured to regulate the flow of the odorized fluid through the outer pipe; and

a second valve connected to the length of outer pipe, the second valve being configured to allow the odorized fluid to be released from the outer pipe into the junction box;

wherein at least a portion of the length of inner pipe is routed outside the length of outer pipe and bypasses the first valve, and wherein the junction box is adapted to contain the odorized fluid at a third pressure that is less than the first pressure.

3. The system of claim 2, further comprising a third valve connected to the length of outer pipe, the third valve being configured to allow the odorized fluid to be released from the outer pipe into the junction box, wherein the second and third valves are located on opposing sides of the first valve.

4. The system of claim 1, further comprising:

a junction box adapted to contain a length of the outer and inner pipes;

a first valve connected to the length of inner pipe, the first valve being configured to regulate the flow of the non-odorized gas through the inner pipe; and

a second valve connected to the length of outer pipe, the second valve being configured to allow the odorized fluid to be released from the outer pipe into the junction box;

wherein at least a portion of the length of inner pipe connected to the first valve is routed outside the length of outer pipe, and wherein the junction box is adapted to contain the odorized fluid at a third pressure that is less than the first pressure.

5. The system of claim 1, further comprising:

a junction box adapted to contain a length of the outer and inner pipes;

a first valve connected to the length of inner pipe, the first valve being configured to regulate the flow of the non-odorized gas through the inner pipe;

a second valve connected to the length of outer pipe, the second valve being configured to allow the odorized fluid to be released from the outer pipe into the junction box; and

a third valve connected to the length of outer pipe, the third valve being configured to allow the odorized fluid to be released from the outer pipe into the junction box;

wherein at least a portion of the length of inner pipe connected to the first valve is routed outside the length of outer pipe, wherein the first and the second valves are adapted to be controlled outside of the junction box, and wherein the junction box is adapted to contain the odorized fluid at a third pressure that is less than the first pressure.

6. The system of claim 5 wherein the first valve comprises a double gland seal.

7. The system of claim 5 wherein the first and the second valves are magnetically coupled.

8. The system of claim 1 wherein the non-odorized gas is flammable.

9. The system of claim 1 wherein the non-odorized gas comprises hydrogen.

10. The system of claim 1 wherein the outer pipe is part of a distribution system for the odorized fluid and wherein the odorized fluid is selected from the group consisting of natural gas, propane and liquefied petroleum gas.

11. The system of claim 1, further comprising:

an inlet pipe connected to the inner pipe at an inlet point; and

a containment unit enclosing the inlet pipe, the containment unit comprising a sensor adapted to detect the non-odorized gas.

12. The system of claim 11, further comprising a control valve connected to the inlet pipe.

13. The system of claim 12 wherein the control valve is adapted to receive an input signal from the sensor.

14. The system of claim 13, further comprising a means for reducing the concentration of the non-odorized gas in the containment unit.

15. The system of claim 12 wherein the control valve is operable in response to the pressure of the non-odorized gas.

16. The system of claim 1 further comprising:

an outlet pipe connected to the inner pipe at an outlet point;

a containment unit enclosing the outlet pipe, the containment unit comprising a sensor adapted to detect the non-odorized gas.

17. The system of claim 16, further comprising a control valve connected to the outlet pipe.

18. The system of claim 17 wherein the control valve is adapted to receive an input signal from the sensor.

19. The system of claim 18, further comprising a means for reducing the concentration of the non-odorized gas in the containment unit.

20. The system of claim 17 wherein the control valve is operable in response to the pressure of the non-odorized gas.

21. The system of claim 1 wherein the inner pipe comprises a non-odorized gas storage container.

22. The system of claim 21 further comprising:

a junction box adapted to contain a length of the outer and inner pipes and to receive the odorized fluid;

a first valve configured to supply the odorized fluid into the junction box and the outer pipe; and

a second valve configured to supply non-odorized gas to the inner pipe and the storage container.

23. The system of claim 22 further comprising a pressure relief valve connected to the outer pipe and configured to release odorized gas when the pressure in the outer pipe exceeds a predetermined level.

24. A method for distributing a non-odorized gas, comprising:

supplying the non-odorized gas at a first pressure in an inner pipe;

supplying an odorized fluid at a second pressure in an outer pipe; and

routing the inner pipe through the outer pipe;

wherein the first pressure is greater than the second pressure.

25. The method of claim 24 wherein the non-odorized gas is flammable.

26. The method of claim 24 wherein the non-odorized gas comprises hydrogen.

27. The method of claim 24 wherein the outer pipe is part of a distribution system for the odorized fluid, wherein the odorized fluid is selected from the group consisting of natural gas, propane and liquefied petroleum gas.